

QUERY CONTROL FORM

RTIS USE ONLY

Application No. 09/841,654

Prepared by NRB

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JACKET

- a. Serial No.
- b. Applicant(s)
- c. Continuing Data
- d. PCT
- e. Domestic Priority

- f. Foreign Priority
- g. Disclaimer
- h. Microfiche Appendix
- i. Title
- j. Claims Allowed

k. Print Claim(s)
l. Print Fig.
m. Searched Column
n. PTO-270/328
o. PTO-892

p. PTO-1449
q. PTOL-85b
r. Abstract
s. Sheets/Figs
t. Other

SPECIFICATION

- a. Page Missing
- b. Text Continuity
- c. Holes through Data
- d. Other Missing Text
- e. Illegible Text
- f. Duplicate Text
- g. Brief Description
- h. Sequence Listing
- i. Appendix
- j. Amendments
- k. Other

CLAIMS

- a. Claim(s) Missing
- ~~b. Improper Dependency~~
- c. Duplicate Numbers
- d. Incorrect Numbering
- e. Index Disagrees
- f. Punctuation
- g. Amendments
- h. Bracketing
- i. Missing Text
- j. Duplicate Text
- k. Other

MESSAGE

In claim pages dated 06/17/04, original claim 125 (now claim 76) depends from original claim 137 (now 88).
Please advise/correct claim dependency.

Thank You

initials Amh

RESPONSE

initials

wt% of at least one metal selected from the group consisting of ruthenium, rhodium, iridium, titanium, magnesium, cobalt, copper, vanadium, manganese, niobium, and iron;

feeding liquid benzene to the reaction zone;

feeding nitrous oxide to the distillation zone;

contacting the benzene and the oxidant gas with the oxidation catalyst under oxidation conditions effective to catalytically hydroxylate at least a portion of the benzene to produce hydroxylated product comprising phenol, the oxidation conditions comprising a temperature of from above 100°C to 270°C and a benzene partial pressure in the range of from about 0.1 atm to about 45 atm;

separating liquid phenol from the distillation zone.

⁷⁵ 124. (New) The process of claim ⁷⁴ 123 wherein the temperature of the distillation zone is higher than the boiling point of benzene and lower than the boiling point of phenol.

⁷⁶ 125. (New) The process of claim ⁸⁸ 127 wherein the at least one metal comprises iron.

⁷⁷ 126. (New) The process of claim ⁷⁶ 125 wherein the zeolite catalyst comprises from about 0.1 wt. % iron to about 1.0 wt. % iron.

⁷⁸ 127. (New) The process of claim ⁷⁷ 126 wherein the zeolite is an alumino-silicate produced without addition of boron.

⁷⁹ 128. (New) The process of claim ⁷⁴ 123 wherein the separating liquid phenol from the distillation zone comprises substantially continuous fractional distillation.

⁸⁰ 129. (New) The process of claim ⁷⁸ 127 wherein the separating liquid phenol from the distillation zone comprises substantially continuous fractional distillation.

⁸¹ 130. (New) The process of claim ⁷⁴ 123 wherein the oxidation conditions comprise a temperature of from about 185 °C. to about 270 °C.

⁸² 131. (New) The process of claim ⁸⁰ 129 wherein the conditions comprise a temperature of from about 185 °C. to about 270 °C.

⁸³ 132. (New) The process of claim ⁷⁴ 123 wherein selectivity for conversion of the oxidant gas to hydroxylated product is at least 90 mol %.